AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A DC-DC converter circuit comprising:

a transformer having a primary winding and a secondary winding, wherein a primary side including the primary winding and a secondary side including the secondary winding are insulated from each other in the DC-DC converter circuit;

a switching circuit including a main switching element which is connected to the primary winding in series and has a control terminal for controlling the main switching element, wherein the main switching element is PWM-controlled so as to stabilize an output voltage of the secondary side;

a driving circuit for generating a PWM driving ~~pulses~~ pulse signal; and

a correction circuit ~~for outputting a voltage whose level is in inverse proportion to an input voltage of the DC-DC converter circuit~~ including a resistor and a capacitor which are connected in series,

wherein an output of the driving circuit is connected to the control terminal of the main switching element and to the resistor of the correction circuit,

the capacitor of the correction circuit is alternately charged and discharged via the resistor in accordance with alternation of an on-state and an off-state of the PWM driving pulse signal, so that an output voltage of the correction circuit has a waveform close to an average of the PWM driving pulse signal, and

a period of time of the on-state of the PWM driving pulse signal is in inverse proportion to an input voltage of the DC-DC converter circuit, and the average of the PWM driving pulse signal is in proportion to the period of time of the on-state, so that the correction circuit outputs a voltage whose level is in inverse proportion to the input voltage.

Claim 2 (Canceled).

Claim 3 (Original): A DC-DC converter circuit as claimed in claim 1, further comprising:

a state measurement circuit, provided in the primary side, for detecting a state of the secondary side at the primary side, wherein the state measurement circuit is connected to the correction circuit.

Claim 4 (Canceled).

Claim 5 (Original): A DC-DC converter circuit as claimed in claim 3, wherein:

the transformer has an auxiliary winding provided at the primary side; and

the state measurement circuit is an output voltage measuring circuit for indirectly measuring a smoothed voltage of the auxiliary winding as a voltage level of the output voltage of the secondary side, wherein the smoothed voltage of the auxiliary winding is in proportion to the output voltage of the secondary side.

Claim 6 (Canceled).

Claim 7 (Original): A DC-DC converter circuit as claimed in claim 3, wherein the state measurement circuit is a current measuring circuit for indirectly measuring an output current of the secondary side by measuring an input current of the primary side.

Claim 8 (Canceled).

Claim 9 (New): A DC-DC converter circuit comprising:

a transformer having a primary winding and a secondary winding, wherein a primary side including the primary winding and a secondary side including the secondary winding are insulated from each other;

a switching circuit including a main switching element which is connected to the primary winding in series and has a control terminal for controlling the main switching element, wherein the main switching element is PWM-controlled;

a driving circuit for generating a PWM driving pulse signal;

a voltage measuring circuit for measuring a voltage generated based on a voltage appearing at an auxiliary winding of the transformer;

a comparison circuit for comparing the measured voltage to a reference voltage; and

a correction circuit providing a correction for an error between an output voltage of the secondary side and the voltage appearing at the auxiliary winding,

wherein the correction circuit includes a resistor and a capacitor which are connected in series,

wherein the voltage measuring circuit is connected to a point between the series-connected resistor and capacitor,

wherein an output of the driving circuit is connected to the control terminal of the main switching element and to the resistor,

the capacitor is alternately charged and discharged via the resistor in accordance with alternation of an on-state and an off-state of the PWM driving pulse signal from the correction circuit, so that an output voltage of the correction circuit has a waveform close to an average of the pulse signal, and

a period of time of the on-state of the PWM driving pulse signal is in inverse proportion to an input voltage of the DC-DC converter circuit, and the average of the pulse signal is in proportion to the period of time of the on-state, so that the correction circuit outputs a voltage whose level is in inverse proportion to the input voltage.

Claim 10 (New): A DC-DC converter circuit comprising:

a transformer having a primary winding and a secondary winding, wherein a primary side including the primary winding and a secondary side including the secondary winding are insulated from each other;

a switching circuit including a main switching element which is connected to the primary winding in series and has a control terminal for controlling the main switching element, wherein the main switching element is PWM-controlled;

a driving circuit for generating a PWM driving pulse signal;

a voltage measuring circuit for measuring a voltage corresponding to a current input to the primary side of the transformer;

a comparison circuit for comparing the measured voltage to a reference voltage; and

a correction circuit for providing a correction for an error between the output current of the secondary side and the current input to the primary side of the transformer,

wherein the correction circuit includes a resistor and a capacitor which are connected in series,

wherein the voltage measuring circuit is connected to a point between the series-connected resistor and capacitor,

wherein an output of the driving circuit is connected to the control terminal of the main switching element and to the resistor,

the capacitor is alternately charged and discharged via the resistor in accordance with alternation of an on-state and an off-state of the PWM driving pulse signal from the correction circuit, so that an output voltage of the correction circuit has a waveform close to an average of the pulse signal, and

a period of time of the on-state of the PWM driving pulse signal is in inverse proportion to an input voltage of the DC-DC converter circuit, and the average of the pulse signal is in proportion to the period of time of the on-state, so that the correction circuit outputs a voltage whose level is in inverse proportion to the input voltage.